



Complete Summary

TITLE

Follow-up for children at risk for delays: proportion of children who were determined to be at significant risk for developmental, behavioral, or social delays who received some level of follow-up health care.

SOURCE(S)

Bethell C, Peck C, Schor E. Assessing health system provision of well-child care: the Promoting Healthy Development Survey. *Pediatrics* 2001 May;107(5):1084-94. [PubMed](#)

Bethell C, Reuland CH, Halfon N, Schor EL. Measuring the quality of preventive and developmental services for young children: national estimates and patterns of clinicians' performance. *Pediatrics* 2004 Jun;113(6 Suppl):1973-83. [PubMed](#)

Child and Adolescent Health Measurement Initiative (CAHMI). Bethell C, Peck Reuland C, Walker C, Brockwood K, Latzke B, Read D. In-office administration of the promoting healthy development survey - reduced-item version. Portland (OR): CAHMI - The Child and Adolescent Health Measurement Initiative; 79 p.

Child and Adolescent Health Measurement Initiative (CAHMI). Promoting healthy development survey - PLUS (PHDS-PLUS). Portland (OR): CAHMI - The Child and Adolescent Health Measurement Initiative; various p.

Child and Adolescent Health Measurement Initiative (CAHMI). The promoting healthy development survey. Portland (OR): CAHMI - The Child and Adolescent Health Measurement Initiative; 2001. 16 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Patient Experience

Brief Abstract

DESCRIPTION

This measure is used to assess the proportion of children who were determined to be at significant risk for developmental, behavioral, or social delays (NOTE: Items derived from the Parents Evaluation of Developmental Status [PEDS©] used to identify children at significant risk.) who received some level of follow-up health care. Follow-up items include testing of child's learning development and behavior, referral to another doctor or speech/language testing, and/or whether a doctor or other health provider noted a concern that should be watched carefully.

RATIONALE

Early identification of children at risk for developmental, behavioral and social delays is an integral component to high quality well-child care. The early identification of developmental problems should lead to further developmental and medical evaluation, diagnosis, and treatment, including early developmental intervention. When developmental surveillance or screening identifies a child as being at high risk of a developmental disorder, diagnostic developmental evaluation should be pursued.

PRIMARY CLINICAL COMPONENT

Risk for developmental, behavioral, or social delays; follow-up (testing, referral)

DENOMINATOR DESCRIPTION

Children age 3 months to 48 months who received a well-child visit in the last 12 months, who were identified as significant risk (high/moderate) for developmental, behavioral and social delays (based on the Parents Evaluation of Developmental Status [PEDS©] items in the Promoting Healthy Development Survey [PHDS]), and whose parents answered at least half of the items asking about follow-up care received

NUMERATOR DESCRIPTION

Children whose parent responded positively to the items indicating the risk-appropriate follow-up care was provided (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- Focus groups
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Overall poor quality for the performance measured
Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Academy of Pediatrics policy statement on identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Elk Grove Village (IL): American Academy of Pediatrics; 2006 Jul.

Bethell C, Peck C, Abrams M, Halfon N, Sareen H, Scott Collins K. Partnering with parents to promote the healthy development of young children enrolled in Medicaid: results from a survey assessing the quality of preventive and developmental services for young children enrolled in Medicaid in three states. New York (NY): Commonwealth Fund; 2002 Sep. 53 p.

Bethell C, Peck C, Schor E. Assessing health system provision of well-child care: the Promoting Healthy Development Survey. Pediatrics 2001 May;107(5):1084-94.
[PubMed](#)

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Collaborative inter-organizational quality improvement
External oversight/Medicaid
Internal quality improvement
National reporting
Quality of care research

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Nurses

Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Children age 3 months to 48 months

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Children age 3 months to 48 months who received a well-child visit in the last 12 months, who were identified as significant risk (high/moderate) for developmental, behavioral and social delays

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Children age 3 months to 48 months who received a well-child visit in the last 12 months, who were identified as significant risk (high/moderate) for developmental, behavioral and social delays (based on the Parents Evaluation of Developmental Status [PEDS©] items in the Promoting Healthy Development Survey [PHDS]), and whose parents answered at least half of the items asking about follow-up care received

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Encounter
Patient Characteristic

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Children whose parent responded positively to the items indicating the risk-appropriate follow-up care was provided

From the responses, a composite measure score is calculated** in which a higher score is associated with better quality.

*Follow-up care items: Whether the child's health care provider did the following:

1. doctor or other health provider noted a concern that should be watched carefully
2. tested child's learning development and behavior
3. referred child to another doctor or health provider
4. referred child for testing of learning, development and behavior
5. referred child for speech-language or hearing testing

**Scoring process:

1. Follow-up items are recoded so that "Yes" responses are recoded into 100 and "No" responses are recoded into 0.
2. Risk-specific scoring is used. (Risk categories are based on the "Parents Evaluation of Developmental Status [PEDS©]" recommendations for how to identify the level of risk).
 - Moderate Risk: Modified PEDS© scoring used to identify children at moderate risk for delays. Scoring for Follow Up: Children at moderate risk whose parents said yes to one or more items are recoded to 100 and those who said No to all of the items are recoded to 0.
 - High Risk: Modified PEDS© scoring used to identify children at moderate risk for delays. Scoring for Follow Up: Children at high risk whose parents said yes to items b-e are recoded to 100. Children whose parents responded No to at least one item in b-e are recoded to 0.
3. Children who received follow-up care are recoded into 100 and those who did not receive follow-up care are recoded into 0.

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Encounter or point in time

DATA SOURCE

Patient survey

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Parents Evaluation of Developmental Status

Computation of the Measure

SCORING

Non-weighted Score/Composite/Scale

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by high-risk subgroup (stratification on vulnerable populations)
Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

Although no stratification is required, the Promoting Healthy Development Survey (PHDS) includes a number of variables that allow for stratification of the findings by possible vulnerability:

- Child demographic characteristics (e.g., the child's age, race)
- Child health and descriptive characteristics (e.g., children at high risk for developmental, behavioral or social delays, special health care needs)
- Parent health characteristics (e.g., children whose parents are experiencing symptoms of depression)

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

1999: Pilot Testing by Mail in Three Health Plans

- Psychometric analyses demonstrated that the Promoting Healthy Development Survey (PHDS) quality measure scales have strong construct validity and internal consistency (reliability). Findings are displayed in the article, "Assessing Health System Provision of Well-child Care: the Promoting Healthy Development Survey."
- In-depth cognitive testing of the draft survey was conducted with 15 families representing a range of socioeconomic and demographic groups, as well as different types of health insurance coverage, age of child, age and sex of parent, and number of children in family. Survey design and formatting was finalized with input from a group of experts and family representatives. Reliability assessments indicated the PHDS to be written at the 8th-9th grade

reading level. Cognitive testing confirmed the readability of the PHDS for people across a range of educational levels.

2000: Implementation by Mail to Medicaid Clients

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the CAHMI Report, "Summary Testing and Findings of the PHDS in Maine."

2000: Implementation by Mail to Washington Medicaid Clients

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the CAHMI Report, "PHDS Results: In Washington State."

2000-2001: Implementation by Telephone Three-State Medicaid Clients

- Cognitive interviews were conducted with 20 parents of children 3 to 48 months old who were enrolled in Medicaid. Five of these interviews were conducted in-person; the remaining 15 were conducted over the telephone in order to assess the response burden and cognitive ease of the PHDS when using a telephone administration. Using behavior coding methods, for each item in the PHDS, instances where the respondent required clarification or did not appropriately answer an item were noted. Also, items where the interviewer had difficulty asking the question without edits to the wording were noted. Survey modifications were made based on findings in order to improve the reliability, validity and cognitive ease of the PHDS items.
- The PHDS was administered by telephone to parents in 3 state Medicaid programs.
- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the report, "Partnering with Parents to Promote the Healthy Development of Young Children Enrolled in Medicaid."

2000: A Majority of the PHDS Included in the National Survey of Early Childhood Health (NSECH)

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the article, "Measuring the quality of preventive and developmental services for young children: National estimates and patterns of clinicians' performance."

2001-2003: Development and Implementation of the Provider-Level PHDS. October 2001-March 2003

- Focus groups and cognitive interviews with 35 health care providers in Vermont and Washington and 20 parents of young children in Vermont to inform item-reduction, administration specifications, and reporting templates.

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the CAHMI reports, "Overview of the Round 1 Implementation of the PHDS in Mousetrap" and "University Pediatrics: Round 2 -- In-Office Implementation of the PHDS Key Findings."

2002-2004: Implementation by Telephone in Four Medicaid Agencies

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the CAHMI report, "Hearing the Voices of Parents: Results from a Survey Assessing the Quality of Preventive and Developmental Services for Young Children Enrolled in Medicaid in Four States."

December 2003 - March 2004 Implementation of the PHDS in Kaiser Permanente, System, Office and Provider-Level Analysis Conducted

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the draft publication, "What drives the quality of preventive and development services provided to young children? Findings from a multi-level, provider and patient-centered method to assess quality."

Fall 2003 - August 2004 Implementation of the ProPHDS in the Healthy Development Collaborative

- ProPHDS administered by mail and in-offices. Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the draft publication, "Assisting primary care practices in using office systems to promote early childhood development."

January - March 2006 Implementation of Three Boston-area Community Health Centers

- Psychometric analyses demonstrated that the PHDS quality measure scales have strong construct validity and internal consistency (reliability). These findings are displayed in the draft publication, "Associations of Language and Cultural Competence with Latino Parents' Views of Their Children's Well Child Care."

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Bethell C, Peck C, Abrams M, Halfon N, Sareen H, Scott Collins K. Partnering with parents to promote the healthy development of young children enrolled in Medicaid: results from a survey assessing the quality of preventive and developmental services for young children enrolled in Medicaid in three states. New York (NY): Commonwealth Fund; 2002 Sep. 53 p.

Bethell C, Peck C, Schor E. Assessing health system provision of well-child care: the Promoting Healthy Development Survey. Pediatrics 2001 May;107(5):1084-94. [PubMed](#)

Bethell C, Peck C. CAHMI quality measures: promoting healthy development survey. Summary of testing and findings in Maine. Portland (OR): Child and Adolescent Health Measurement Initiative (CAHMI); 2000 Sep. 51 p.

Bethell C, Peck C. Medicaid parents experience with the health care system: summary of findings from a survey of parents of young children enrolled in Medicaid in three ABCD states. New York (NY): Commonwealth Fund; 2001.

Bethell C, Reuland CH, Halfon N, Schor EL. Measuring the quality of preventive and developmental services for young children: national estimates and patterns of clinicians' performance. Pediatrics 2004 Jun;113(6 Suppl):1973-83. [PubMed](#)

Child and Adolescent Health Measurement Initiative (CAHMI). Child and adolescent health measurement initiative: Washington State Healthy options. Promoting healthy development survey (PHDS): 2000 results. Portland (OR): Child and Adolescent Health Measurement Initiative, Foundation for Accountability; 2000. 59 p.

Child and Adolescent Health Measurement Initiative (CAHMI). Overview of the round 1 implementation of the PHDS in mousetrap and university pediatrics. Portland (OR): Child and Adolescent Health Measurement Initiative (CAHMI); 27 p.

Child and Adolescent Health Measurement Initiative (CAHMI). What drives the quality of preventive and development services provided to young children? Findings from a multi-level, provider and patient-centered method to assess quality. Portland (OR): Child and Adolescent Health Measurement Initiative (CAHMI); 2006. 38 p. [60 references]

Reuland C, Bethell C. Hearing the voices of parents: measuring and improving preventive and developmental services provided to young children. Portland (OR): Child and Adolescent Health Measurement Initiative (CAHMI); 2004 Jun. 97 p.

Identifying Information

ORIGINAL TITLE

Follow-up for children at risk for developmental, behavioral, or social delays.

MEASURE COLLECTION

[Promoting Healthy Development Survey \(PHDS\)](#)

MEASURE SET NAME

[Follow-Up for Children at Risk for Developmental, Behavioral or Social Delays](#)

DEVELOPER

Child and Adolescent Health Measurement Initiative

FUNDING SOURCE(S)

The Commonwealth Fund

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

Christina Bethell, PhD, MBA, MPH; Colleen Reuland, MS; Brooke Latzke, BS

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

None

ENDORSER

National Quality Forum

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2001 Jan

REVISION DATE

2006 Dec

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Bethell C, Peck C, Schor E. Assessing health system provision of well-child care: the Promoting Healthy Development Survey. *Pediatrics* 2001 May;107(5):1084-94. [PubMed](#)

Bethell C, Reuland CH, Halfon N, Schor EL. Measuring the quality of preventive and developmental services for young children: national estimates and patterns of clinicians' performance. *Pediatrics* 2004 Jun;113(6 Suppl):1973-83. [PubMed](#)

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Child and Adolescent Health Measurement Initiative (CAHMI). The promoting healthy development survey. Portland (OR): CAHMI - The Child and Adolescent Health Measurement Initiative; 2001. 16 p.

MEASURE AVAILABILITY

The individual measure, "Follow-up for Children at Risk for Developmental, Behavioral, or Social Delays," is published in "Promoting Healthy Development Survey (Mail Version)," "In-office Administration of the Promoting Healthy Development Survey - Reduced-item Version (Office Version)," and "Promoting Healthy Development Survey - PLUS (PHDS-PLUS) (Telephone Version)." This survey is available from the [Child and Adolescent Health Measurement Initiative \(CAHMI\) Web site](#).

For further information, please contact the Child and Adolescent Health Measurement Initiative (CAHMI) at: 707 SW Gaines Street, Portland, OR 97239-3098; Phone: 503-494-1930; Fax: 503-494-2473; Web site: www.cahmi.org.

COMPANION DOCUMENTS

The following are available:

- Child and Adolescent Health Measurement Initiative (CAHMI). The promoting healthy development survey: implementation guidelines. Portland (OR): CAHMI - The Child and Adolescent Health Measurement Initiative, Oregon Health & Science University; 179 p. This document is available in Portable Document Format (PDF) from the [Child and Adolescent Health Measurement Initiative \(CAHMI\) Web site](#).
- Child and Adolescent Health Measurement Initiative (CAHMI). The promoting healthy development survey - PLUS: implementation guidelines. Portland (OR): CAHMI - The Child and Adolescent Health Measurement Initiative, Oregon Health & Science University; 320 p. This document is available in PDF from [CAHMI Web site](#).

NQMC STATUS

This NQMC summary was completed by ECRI Institute on November 28, 2007. The information was verified by the measure developer on January 3, 2008.

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Date Modified: 11/3/2008

